



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,459	10/16/2001	Katsunori Hirase	011386	3658

23850 7590 06/06/2005

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP  
1725 K STREET, NW  
SUITE 1000  
WASHINGTON, DC 20006

EXAMINER
----------

NATNAEL, PAULOS M

ART UNIT	PAPER NUMBER
----------	--------------

2614

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/977,459

Applicant(s)

HIRASE ET AL.

Examiner

Paulos M. Natnael

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-9 and 15-17 is/are allowed.
- 6) ☒ Claim(s) 1,2,10 and 11 is/are rejected.
- 7) ☒ Claim(s) 3-5,12-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1 and 2** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fujimoto, U.S. Pat. No. 5,912,710 in view Velez et al., US. Patent No. 6,678,006.**

Considering claim **1**, Fujimoto disclose the following claimed subject matter, note;

a) a first image data processing circuit scaling said first image data and thereafter weighting said scaled first image data, is met by Second Scaler 107 and alpha blending 108, Fig.1, which alpha-blends the scaled image data.

c) a first combining circuit combining said first image data processed by said first Image data processing circuit and said second image data processed by said second image data processing circuit, is met the alpha blending 108, fig.1, which also is used to combine the two image signals.;

Except for;

b) a second image data processing circuit weighting said second image data and thereafter scaling said weighted second image data;

Regarding b), Fujimoto discloses 1<sup>st</sup> scaler 106 and the alpha-blending 108 combination, which scale and alpha-blend a second image data. Fujimoto does not specifically show the reverse process method – a method which is nevertheless well known in the art. In this regard, Velez et al disclose a video processing that includes sub-picture scaling. On fig.2, Velez discloses a DVD Video Scaling Module 52 and Blending Module 56 which uses the scaled contrast Value (k) 55 to weight the signal. Velez et al also disclose an alternative version of their invention as shown in the lower part of Fig.2 wherein the decoder 22 is shown to blend the VScaled YUV 51 signal of the main video data and the sub picture video data 50 and thereafter the scaling module 61 is utilized to scale the combined signal. In other words, the reference of Velez teaches both scaling first then weigh, and weighting first and then scaling.

It would have been therefore obvious to the skilled in the art at the time the invention was made to modify the system of Fujimoto by providing the blending/weighting process first and then scaling the same as shown in fig.2 of Velez et al, performing the process for each signal (so that the user would have an option of processing the signal either way) in order to minimize noise and signal deterioration that is very crucial in video (DVD as well as TV) processing.

Considering claim 2, the image data output device according to claim 1, wherein a weighting factor used by said first image data processing circuit is scaled according to resolution of an image display unit, is met by the disclosure "The execution contents of the horizontal scaling is determined by a H-CONT value of the scaling parameter

provided from the control register 314. The H-CONT value of the scaling parameter is determined as a function of both the display aspect ratio and the resolutions for the graphics source. (col. 13, lines 10-22) [emphasis added]

3. Claims **10 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimoto U.S. Pat. No. 5,912,710 in view **Velez** et al., US. Patent No. 6,678,006 as applied to claims **1 and 2** above, and further in view of Mills, U.S. Pat. No. 5,953,691.

Considering claim **10**,

e) said image data output device including a first image data processing circuit scaling said first image data and thereafter weighting said scaled first image data, a second image data processing circuit weighting said second image data and thereafter scaling said multiplied second image data, and a first combining circuit combining said first image data processed by said first image data processing circuit and said second image data processed by said second image data processing circuit;

Regarding e), see rejection of claim 1.

Except for;

a) a tuner selectively receiving a signal transmitting first image data representing a moving image and second image data representing an image including characters and graphics.

- b) a separating unit separating the received signal into a signal corresponding to said first image data and a signal corresponding to said second image data.
- c) a decoding unit reproducing said first and second image data from an output of said separating unit.
- d) an image data output device receiving said first and second image data from said decoding unit to output an image signal corresponding to a composite image generated by combining said first and second data.

Regarding a)-d), Fujimoto and Velez et al. as modified above disclose TV(NTSC, PAL) encoder and TV monitor (Fujimoto) and displaying television/video source data on computers (Velez et al). Items a)-d) therefore are well known part of any video or television receiving device, such as the set-top box disclosed by Mills in Figure 1 which outputs a composite image (graphics + MPEG video) at terminal 67. Therefore, it would have been obvious to those with ordinary skilled in the art at the time the invention was made to modify the system of Fujimoto and Velez et al. as modified above by providing the well-known apparatus of a television receiver, so that the television or video signal is received and displayed properly rendering the references of Fujimoto and Velez et al more versatile.

Considering claim 11, the receiving device according to claim 10, wherein a weighting factor used by said first image data processing circuit is scaled according to resolution of an image display unit.

Regarding claim 11, see rejection of claim 10 as modified above and claim 2.

***Response to Arguments***

4. Applicant's arguments filed September 30, 2004 have been fully considered but they are not persuasive.

Applicant argues that "neither Fujimoto nor Velez et al. describe scaling moving image data and thereafter weighting the scaled moving image data and weighting image data having characters and graphics and thereafter scaling said weighted image data having characters and graphics. In other words Fujimoto and Velez et al. do not describe changing the order of scaling and weighting depending on the type of data being analyzed. ... In other words, the present invention, according to claim 1, is directed to an image data output device that performs the weighting and the scaling in an order specific to the type of an image, namely in an order that is determined depending on the type of an image to be processed. Although it seems that Fujimoto discloses the first image data processing circuit and the first combining circuit, there is no disclosure or suggestion of the second image data processing circuit in Fujimoto.... Velez discloses the blending module 56 that blends data and the scaling module 61 that scales an output signal from the blending module 56. However, Velez discloses that the blending module 56 blends the scaled video data 57 with scaled sub picture video data and then the scaling module 6 1 scales the blended data. In other words, although Velez discloses the configuration in which first image data representing a moving image and second image data representing an image including characters and graphics

are blended and thereafter the blended data is scaled. Velez does not disclose or suggest the second image data processing circuit as claimed in claim 1 with which only the second image data representing an image including characters and graphics is weighted and thereafter scaled. (emphasis added by examiner)

5. [Please note that the combining circuit was inadvertently wrongly indicated as being met by blending module 56, fig.2 in the previous office action; but of course there is no blending module 56 in Fujimoto. Module 56 is illustrated in Velez et al. fig.2. The examiner meant to write alpha blending 108, fig.1 of Fujimoto, which also does the combining, as shown above in the rejection.]

In response to applicant's arguments, the recitation "moving image data" and "having characters and graphics" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

The examiner would like to point out that applicants cannot show non-obviousness by attacking references individually where, as here the rejections are based on combination of references. *In re Keller*, 208 USPQ (CCPA 1981)



Fujimoto and Velez et al. in combination disclose the claimed limitations. As admitted by the applicant Velez et al discloses "a first image data representing a moving image data and second image data representing an image including character and graphics are blended and thereafter the blended data is scaled." Velez discloses changing the order of scaling (as in scaling module 61) and weighting (as in blending module 56) shown in Fig.2. That is, the second part of figure 2 illustrates the second image data processing, wherein sub-picture data is blended first and then scaled in the scaling module 61. As to the argument that "...weighting depending on the type of data being analyzed", examiner submits nowhere do claims 1,2, 10 and 11 recite such a limitation. That is to say, Applicant is arguing something that is not found in the claims. Ditto with the statement "in an order specific to the type of an image, namely in an order that is determined depending on the type of an image to be processed." Such language again is not found in the claims. As to claim 10, the references of Fujimoto and Velez et al. as modified disclose TV (NTSC, PAL) encoder and TV monitor (Fujimoto) and displaying television/video source data on computers (Velez et al). These are well known parts of any video or television signal receiving devices, such as the set-top box disclosed by Mills in Figure 1. It would have been therefore obvious to the skilled in the art to modify the systems of Fujimoto and Velez et al. as modified above by providing the well-known apparatus of a television receiver as taught by Mills.

Thus, the argument that Fujimoto and Velez in combination do not disclose or suggest claim 1 (and Fujimoto, Velez and Mills claim 10), is unpersuasive.

***Allowable Subject Matter***

6. Claims **6-9** and **15-17** are allowable over the prior art.
7. Claims **3-5** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. Claims **12-14** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
9. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose an image data output device, wherein said first image data processing circuit includes first scaling circuit scaling said first image data and weighting factor multiplier circuit weighting said first image data scaled by said first scaling circuit, said second image data processing circuit includes a second combining circuit receiving said second image data for weighting at least one image data constituting said second image data and combining the weighted image data to generate one composite image data and a second scaling circuit scaling the composite image data generated by said second combining circuit, and said first combining circuit combines the image data supplied from said weighting factor multiplier circuit and the image data supplied from said second scaling circuit, as in claim 3; a plurality of first scaling circuits scaling said first image data according to respective resolutions of said plurality of image display units; a plurality of weighting factor multiplier circuits

Art Unit: 2614

multiplying said first image data scaled by said plurality of first scaling circuits by respective weighting factors; a first combining circuit receiving said second image data for weighting at least one image data constituting said second image data and combining the weighted image data to generate one composite image data; a second scaling circuit scaling the composite image data generated by said first combining circuit according to respective resolutions of said plurality of image display units; and a plurality of second combining circuits combining image data supplied respectively from said plurality of weighting factor multiplier circuits and image data supplied from said second scaling circuit to generate and output composite image data according to respective resolutions of said plurality of image display units, as in claim 6; a plurality of first weighting factor multiplier circuits respectively multiplying, by respective weighting factors, first image data to be output respectively for said plurality of image display units and representing a moving image; a second weighting, factor multiplier circuit multiplying second image data representing an image including characters and graphics by a weighting factor; a scaling circuit scaling the image data supplied from said second weighting factor multiplier circuit according to respective resolutions of said plurality of image display units; and a plurality of combining circuits combining image data supplied respectively from said plurality of first weighting factor multiplier circuits and image data supplied from said scaling circuit to generate and output composite image data according to respective resolutions of said plurality of image display units, as in claims 9 and 15;

***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

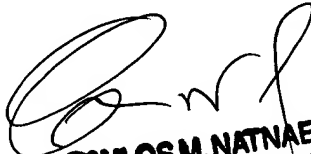
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (571) 272-7354. The examiner can normally be reached on 10:00am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571)272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2614

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PMN  
May 29, 2005



**PAULOS M. NATNAEL**  
**PATENT EXAMINER**